

Overtime in Montgomery County Departments

May 9, 2008

CountyStat Principles

- **Require Data-Driven Performance**
- **Promote Strategic Governance**
- **Increase Government Transparency**
- **Foster a Culture of Accountability**



Agenda

- **Introduction**
- **Overtime in Montgomery County**
- **Tracking Overtime by Departments**
 - Montgomery County Fire and Rescue Services (MCFRS)
 - Montgomery County Police Department (MCPD)
 - Department of Public Works and Transportation (DPWT)
 - Department of Correction and Rehabilitation (DOCR)
- **Case Studies: Identifying the Variables Impacting Overtime**
 - MCFRS: Wage Correlation
 - MCPD: Departmental Nuances
 - DPWT: Annual Leave
 - DOCR: Sick Leave
- **Wrap-up**



Importance of Overtime in Montgomery County

All Departments should closely monitor overtime to ensure that Montgomery County Residents receive the highest possible return on their tax-dollar investment

- **Overtime is an Indicator of Operational Procedures**
 - Overtime expenditures are impacted by adjusting operational procedures
 - Uncovering the “why” behind overtime statistics allows Departments to promote innovative solutions to operational inefficiency
- **Overtime Assists in the Provision of Services During Times of Need**
 - Departments face extenuating situations when their services are in high demand and require the use of overtime
 - Mandatory overtime is included in collective bargaining agreements
- **Overtime Expenditures Serve as a Barometer of Change**
 - Monitoring overtime prevents employees from working excessive hours that may result in increased sick leave and higher turn-over rates
 - Increased overtime can indicate increased burden on specific Departments and allow the County to realign resources



Use of Overtime Across Montgomery County - Cost

Montgomery County departments spend almost as much on overtime as they do on annual leave, personal days, and paid time off combined

	FY04	FY05	FY06	FY07
Overtime Cost*	\$31,818,816	\$36,623,871	\$40,408,571	\$43,409,138
County-wide payroll*	\$498,797,530	\$529,503,994	\$566,862,554	\$611,951,272
Overtime as % of total payroll	6.4%	6.9%	7.1%	7.1%
Annual overtime growth		15.1%	10.3%	7.4%
Cumulative Overtime Growth FY04- FY07				36.4%

* Earning codes OTP and OT2 only, all funding sources



Use of Overtime Across Montgomery County - Hours

Between FY04 and FY07, overtime hours grew 20%. County-wide hours worked grew 10% over that same time period.

	FY04	FY05	FY06	FY07
Overtime Cost*	898,190	989,411	1,038,412	1,078,416
County-wide payroll*	23,017,816	23,622,315	24,357,638	25,337,631
Overtime as % of total payroll	3.9%	4.2%	4.3%	4.3%
Annual overtime growth		10.2%	5.0%	3.9%
Cumulative Overtime Growth FY04-FY07				20.1%

* Earning codes OTP and OT2 only, all funding sources



Overtime Use By Departments in Dollars

	FY04		FY05		FY06		FY07	
	Dollars	WY	Dollars	WY	Dollars	WY	Dollars	WY
Fire And Rescue Service	\$9,172,573	1,078	\$13,452,011	1,142	\$16,305,061	1,155	\$15,307,043	1,236
Public Works & Transportation	\$7,650,846	1,457	\$7,622,043	1,509	\$7,581,796	1,482	\$9,555,471	1,529
Police	\$9,624,277	1,513	\$9,854,841	1,582	\$9,737,663	1,652	\$10,478,158	1,733
Correction And Rehabilitation	\$3,309,860	540	\$3,524,064	572	\$4,152,596	585	\$4,154,179	626
Sheriff	\$957,509	164	\$750,438	166	\$1,011,620	169	\$1,051,889	177
Liquor Control	\$276,290	292	\$256,574	293	\$324,141	321	\$539,840	330
Board Of Elections	\$207,263	33	\$355,919	33	\$47,651	28	\$712,198	47
Health & Human Services	\$189,386	1,423	\$281,474	1,467	\$439,005	1,476	\$623,164	1,506
Permitting Services	\$197,513	189	\$255,139	191	\$314,849	191	\$325,171	216

* Earning codes OTP and OT2 only, all funding sources



Overtime Use By Departments in Hours

	FY04		FY05		FY06		FY07	
	Hours	WY	Hours	WY	Hours	WY	Hours	WY
Fire And Rescue Service	242,644	1,078	332,319	1,142	381,034	1,155	337,217	1,236
Public Works & Transportation	251,579	1,457	246,639	1,509	240,053	1,482	285,405	1,529
Police	238,276	1,513	241,021	1,582	229,392	1,652	234,792	1,733
Correction And Rehabilitation	103,736	540	105,513	572	117,354	585	112,364	626
Sheriff	26,973	164	20,035	166	24,482	169	25,383	177
Liquor Control	11,336	292	10,036	293	12,443	321	19,365	330
Board Of Elections	7,540	33	13,207	33	1,376	28	22,893	47
Health & Human Services	4,517	1,423	6,506	1,467	10,151	1,476	13,860	1,506
Permitting Services	4,403	189	5,545	191	6,584	191	6,841	216

* Earning codes OTP and OT2 only, all funding sources



Monitoring Overtime in Montgomery County

Tracking overtime provides an opportunity to uncover operational inefficiencies and create actionable solutions

Goal

- Implement a bi-monthly monitoring system that tracks the utilization of various kinds of leave and overtime
- Identify department-specific causes of overtime and develop a plan for analysis of potential inefficiencies

Requirements

- Departments closely monitor their payroll data
- Departments honestly evaluate and review internal operations
- Departments report on interim findings and work with CountyStat to streamline processes

Process

- Develop methodology to reconcile department-generated figures with CountyStat-generated figures
- Departments record their statistics by pay-period
- Departments report on their statistics at bi-monthly CountyStat meetings focused on overtime



Overtime Summary - MCFRS

	FY04	FY05	FY06	FY07
Total hours	242,644	332,319	381,034	337,216
Total cost	\$9,172,572	\$13,452,010	\$16,305,061	\$15,307,042

Main Uses of Overtime

- Backfill positions in the field to prevent units from being taken out of service (over 60 percent of overtime hours)
- Instructors at the training academy
- Fire code enforcement (covered through revenues)

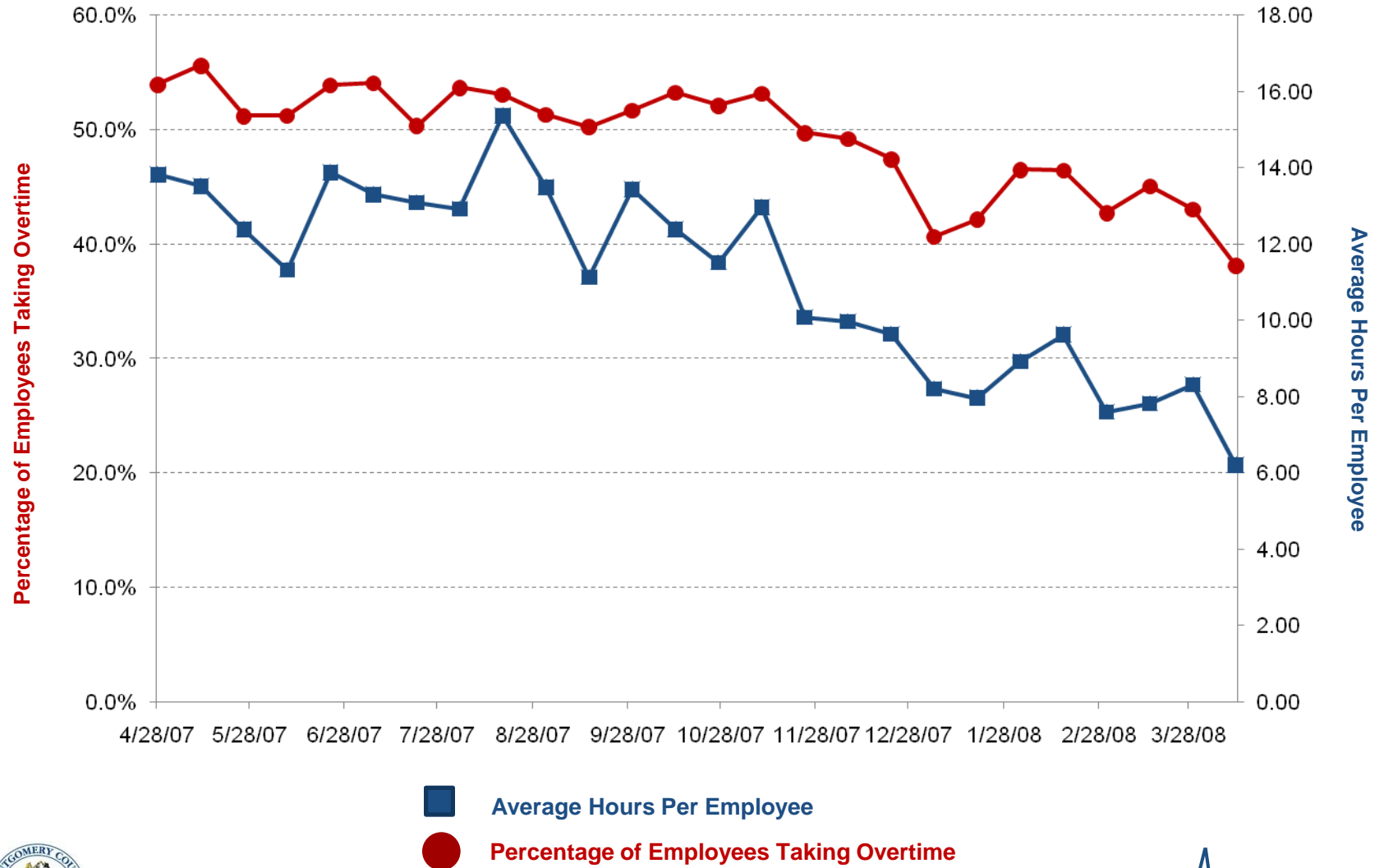


Overtime Reporting - MCFRS

	Pay Period End Date			
	3/1/08	3/15/08	3/29/08	4/12/08
Number of employees				
On payroll	1257	1254	1315	1305
That claimed overtime (OTP or OT2)	537	565	566	497
That took annual leave (ANL)	276	257	331	293
That took sick leave (SKL or FSL)	278	216	243	235
% that claimed overtime	42.7%	45.1%	43.0%	38.1%
% that took annual leave	22.0%	20.5%	25.2%	22.5%
% that took sick leave	22.1%	17.2%	18.5%	18.0%
Overtime characteristics				
Total overtime hours (OTP and OT2)	9,550.50	9,811.95	10,932.60	8,091.45
Total overtime dollars (OTP and OT2)	\$466,888.54	\$469,829.30	\$522,833.63	\$394,874.53
Correlation coefficient: overtime hours vs. wages	0.253	0.21	0.252	0.313
Average overtime wage	\$48.89	\$47.88	\$47.82	\$48.80
Average overtime hours per employee	7.60	7.82	8.31	6.20
Leave characteristics				
Total hours of annual leave (ANL)	5,030.56	5,088.52	7,098.92	5,436.82
Total hours of sick leave (SKL and FSL)	6,001.62	4,352.29	5,640.44	4,874.36
Average hours of annual leave per employee	4.00	4.06	5.40	4.17
Average hours of sick leave per employee	4.77	3.47	4.29	3.74
Leave characteristics				
# of employees with both overtime and annual leave	117	109	142	109
# of employees with both overtime and sick leave	113	78	91	75
# of employees with both overtime and either annual or sick leave	200	166	215	161
% of employees with both overtime and annual leave	9.3%	8.7%	10.8%	8.4%
% of employees with both overtime and sick leave	9.0%	6.2%	6.9%	5.7%
% of employees with both overtime and either annual or sick leave	15.9%	13.2%	16.3%	12.3%
Ratio of overtime hours to annual leave hours	1.90	1.93	1.54	1.49
Ratio of overtime hours to sick leave hours	1.59	2.25	1.94	1.66



FY08 Overtime Summary - MCFRS



Overtime Summary - MCPD

	FY04	FY05	FY06	FY07
Total hours	233,246	236,870	224,642	229,751
Total cost	\$9,381,006	\$9,647,441	\$9,493,316	\$10,205,744

* Mandatory overtime (roll call and K-9 prep) has been excluded

Main Uses of Overtime

- Court
- Emergency Communication Center
- Held over/call back
- Investigations
- Administrative functions



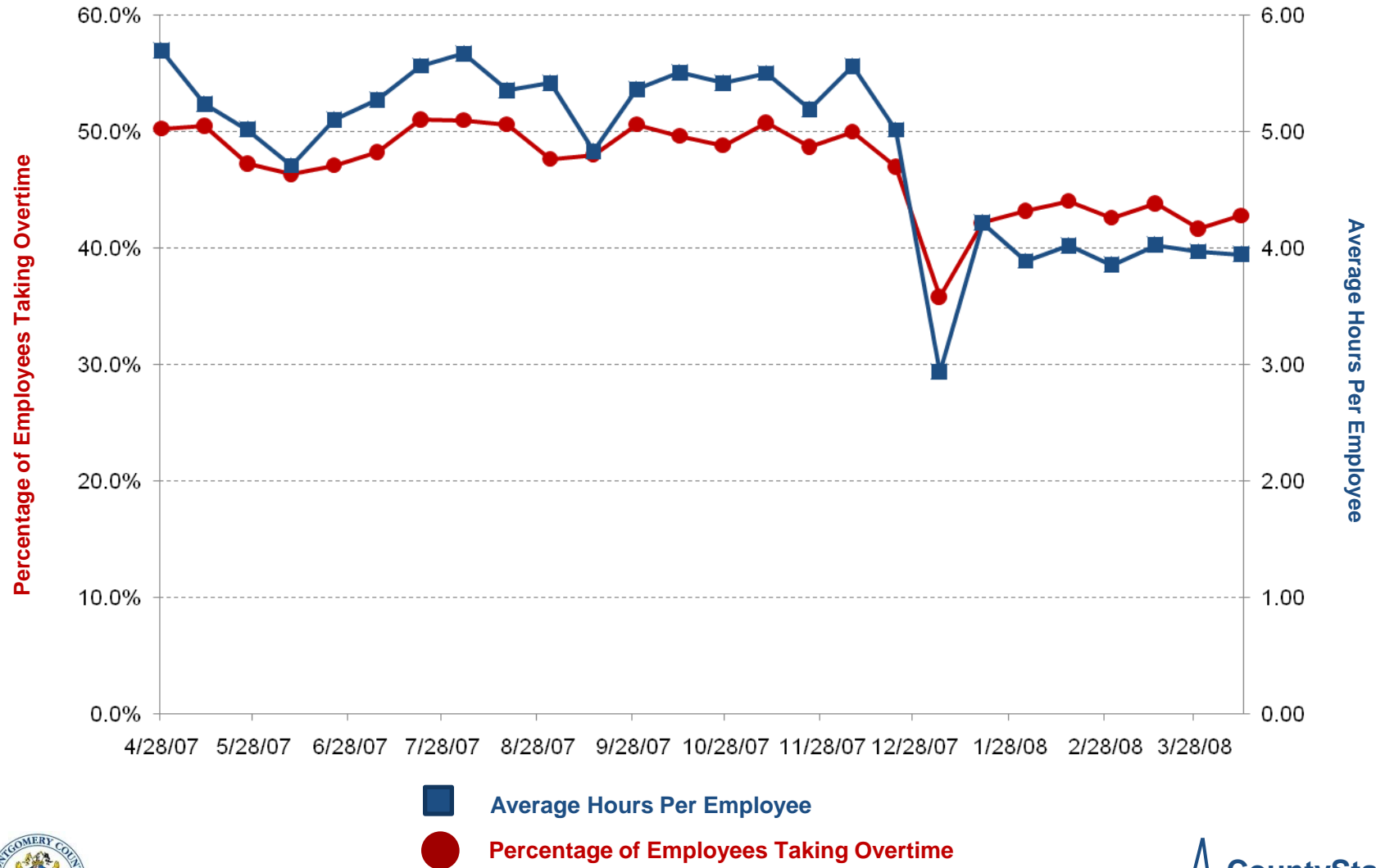
Overtime Reporting - MCPD

	Pay Period End Date			
	3/1/08	3/15/08	3/29/08	4/12/08
Number of employees				
On payroll	1796	1810	1796	1792
That claimed overtime (OTP or OT2)	765	793	748	767
That took annual leave (ANL)	394	408	660	527
That took sick leave (SKL or FSL)	447	437	389	415
% that claimed overtime	42.6%	43.8%	41.6%	42.8%
% that took annual leave	21.9%	22.5%	36.7%	29.4%
% that took sick leave	24.9%	24.1%	21.7%	23.2%
Overtime characteristics				
Total overtime hours (OTP and OT2)	6,922.40	7,285.50	7,122.50	7,070.20
Total overtime dollars (OTP and OT2)	\$337,841.64	\$351,365.89	\$343,237.64	\$343,610.59
Correlation coefficient: overtime hours vs. wages	-0.01	-0.002	0.012	0.055
Average overtime wage	\$48.80	\$48.23	\$48.19	\$48.60
Average overtime hours per employee	3.85	4.03	3.97	3.95
Leave characteristics				
Total hours of annual leave (ANL)	4,150.69	4,852.60	11,025.64	6,246.92
Total hours of sick leave (SKL and FSL)	6,204.30	5,798.07	6,297.38	5,994.31
Average hours of annual leave per employee	2.31	2.68	6.14	3.49
Average hours of sick leave per employee	3.45	3.20	3.51	3.35
Leave characteristics				
# of employees with both overtime and annual leave	159	171	239	224
# of employees with both overtime and sick leave	160	157	125	129
# of employees with both overtime and either annual or sick leave	282	295	318	319
% of employees with both overtime and annual leave	8.9%	9.4%	13.3%	12.5%
% of employees with both overtime and sick leave	8.9%	8.7%	7.0%	7.2%
% of employees with both overtime and either annual or sick leave	15.7%	16.3%	17.7%	17.8%
Ratio of overtime hours to annual leave hours	1.67	1.50	0.65	1.13
Ratio of overtime hours to sick leave hours	1.12	1.26	1.13	1.18

* Mandatory overtime (roll call and K-9 prep) has been excluded



FY08 Overtime Summary - MCPD



Overtime Summary - DPWT

	FY04	FY05	FY06	FY07
Total hours	251,579	246,638	240,052	285,404
Total cost	\$7,650,845	\$7,622,043	\$7,581,795	\$9,555,470

Main Uses of Overtime

- Scheduled and unscheduled overtime hours for Transit bus operators
- Response to Snow / Ice removal operation
- Response to Highway related emergencies
- Implementation of Leafing program
- Staffing two Solid Waste's Beauty Spot Operations on weekends
- Implementation of Capital Programs
- Response to building emergencies

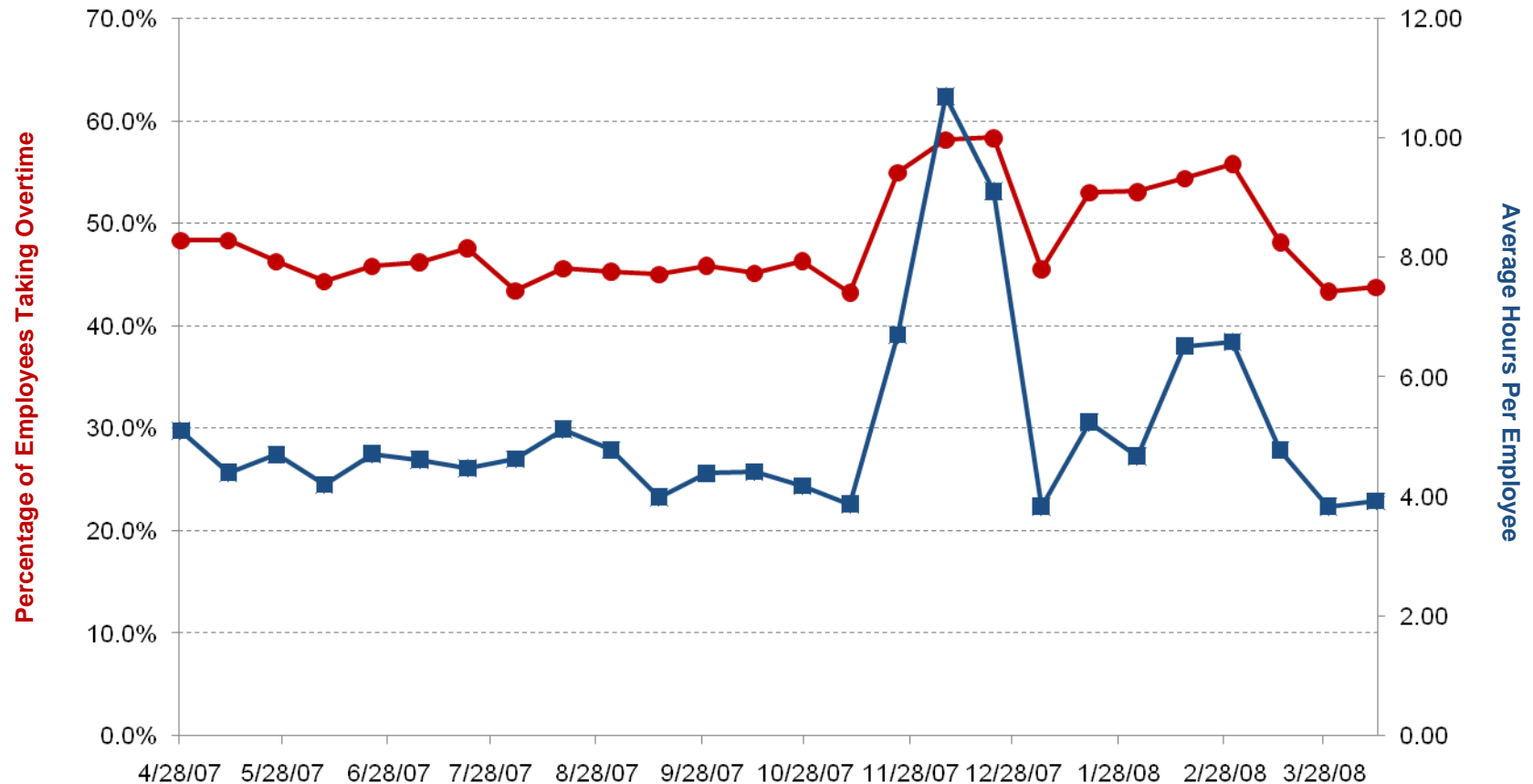


Overtime Reporting - DPWT

	Pay Period End Date			
	3/1/08	3/15/08	3/29/08	4/12/08
Number of employees				
On payroll	1790	1882	1889	1902
That claimed overtime (OTP or OT2)	999	906	819	832
That took annual leave (ANL)	522	462	590	514
That took sick leave (SKL or FSL)	539	582	569	574
% that claimed overtime	55.8%	48.1%	43.4%	43.7%
% that took annual leave	29.2%	24.5%	31.2%	27.0%
% that took sick leave	30.1%	30.9%	30.1%	30.2%
Overtime characteristics				
Total overtime hours (OTP and OT2)	11,802.30	8,998.90	7,253.00	7,463.10
Total overtime dollars (OTP and OT2)	\$434,588.16	\$307,084.00	\$243,852.61	\$256,021.90
Correlation coefficient: overtime hours vs. wages	0.119	0.019	0.024	0.049
Average overtime wage	\$36.82	\$34.12	\$33.62	\$34.31
Average overtime hours per employee	6.59	4.78	3.84	3.92
Leave characteristics				
Total hours of annual leave (ANL)	5,560.21	5,268.03	8,459.98	6,637.86
Total hours of sick leave (SKL and FSL)	6,544.84	7,085.41	6,903.88	6,708.86
Average hours of annual leave per employee	3.11	2.80	4.48	3.49
Average hours of sick leave per employee	3.66	3.76	3.65	3.53
Leave characteristics				
# of employees with both overtime and annual leave	251	169	206	181
# of employees with both overtime and sick leave	254	224	213	222
# of employees with both overtime and either annual or sick leave	426	330	349	336
% of employees with both overtime and annual leave	14.0%	9.0%	10.9%	9.5%
% of employees with both overtime and sick leave	14.2%	11.9%	11.3%	11.7%
% of employees with both overtime and either annual or sick leave	23.8%	17.5%	18.5%	17.7%
Ratio of overtime hours to annual leave hours	2.12	1.71	0.86	1.12
Ratio of overtime hours to sick leave hours	1.80	1.27	1.05	1.11



FY08 Overtime Summary - DPWT



Average Hours Per Employee



Percentage of Employees Taking Overtime



Overtime

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Overtime Summary - DOCR

	FY04	FY05	FY06	FY07
Total hours	71,409	72,877	83,998	77,468
Total cost	\$2,296,377	\$2,450,436	\$2,990,565	\$2,884,542

* Mandatory overtime (roll call) has been excluded

Main Uses of Overtime

- Backfill to cover mandatory posts when employees are out due to
 - Sick leave and disability leave
 - Annual leave
 - Training
 - Administrative leave
- Special duties such as extra security during the sniper trial



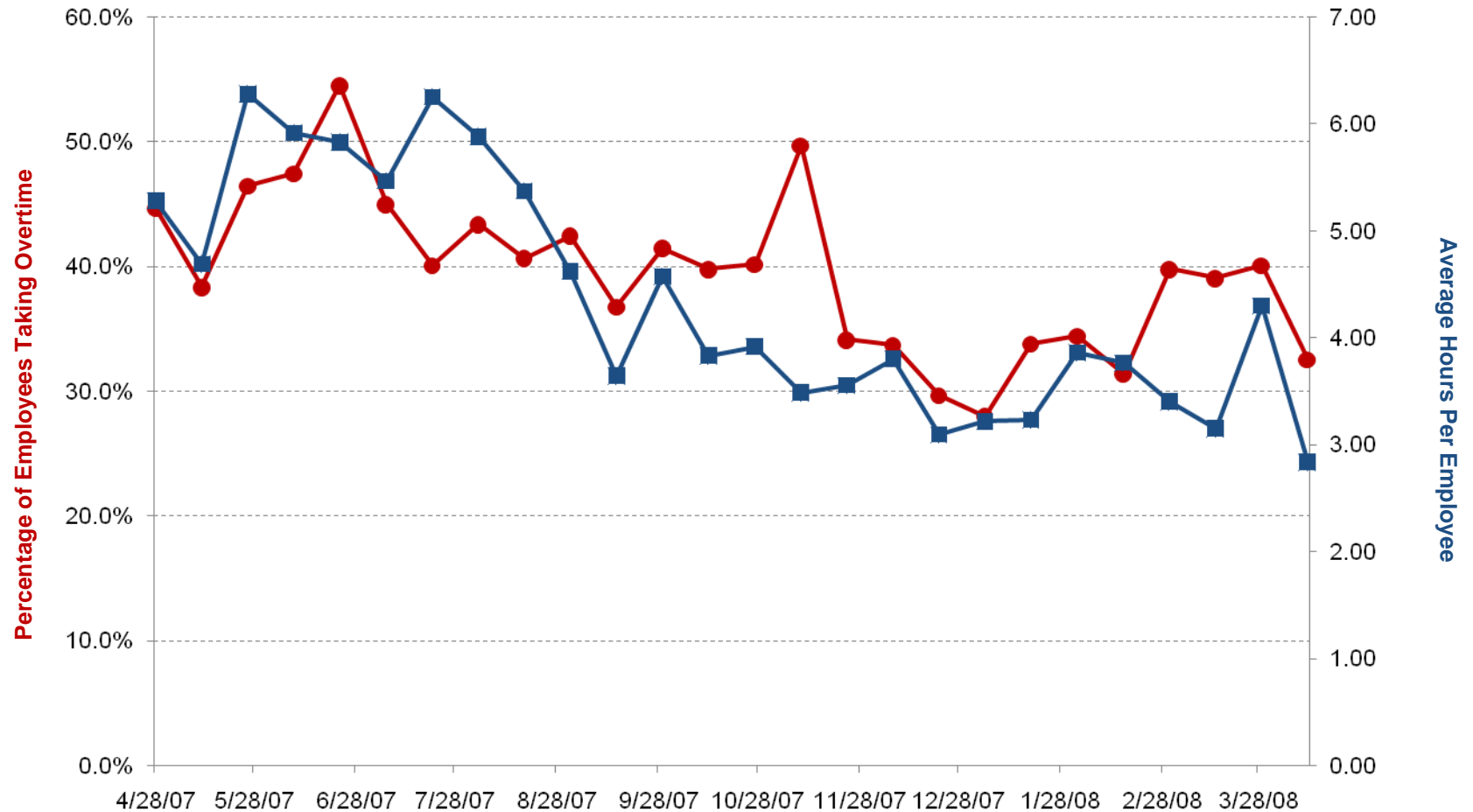
Overtime Reporting - DOCR

	Pay Period End Date			
	3/1/08	3/15/08	3/29/08	4/12/08
Number of employees				
On payroll	586	584	579	584
That claimed overtime (OTP or OT2)	233	228	232	190
That took annual leave (ANL)	118	129	150	109
That took sick leave (SKL or FSL)	163	165	161	143
% that claimed overtime	39.8%	39.0%	40.1%	32.5%
% that took annual leave	20.1%	22.1%	25.9%	18.7%
% that took sick leave	27.8%	28.3%	27.8%	24.5%
Overtime characteristics				
Total overtime hours (OTP and OT2)	1,991.00	1,839.00	2,487.00	1,653.00
Total overtime dollars (OTP and OT2)	\$81,685.88	\$75,603.57	\$102,562.00	\$69,045.06
Correlation coefficient: overtime hours vs. wages	-0.045	0.053	-0.13	-0.025
Average overtime wage	\$41.03	\$41.11	\$41.24	\$41.77
Average overtime hours per employee	3.40	3.15	4.30	2.83
Leave characteristics				
Total hours of annual leave (ANL)	2,174.16	2,353.84	3,477.85	1,962.62
Total hours of sick leave (SKL and FSL)	2,170.04	2,097.82	2,079.95	1,885.94
Average hours of annual leave per employee	3.71	4.03	6.01	3.36
Average hours of sick leave per employee	3.70	3.59	3.59	3.23
Leave characteristics				
# of employees with both overtime and annual leave	35	39	59	30
# of employees with both overtime and sick leave	60	55	65	38
# of employees with both overtime and either annual or sick leave	86	84	103	62
% of employees with both overtime and annual leave	6.0%	6.7%	10.2%	5.1%
% of employees with both overtime and sick leave	10.2%	9.4%	11.2%	6.5%
% of employees with both overtime and either annual or sick leave	14.7%	14.4%	17.8%	10.6%
Ratio of overtime hours to annual leave hours	0.92	0.78	0.72	0.84
Ratio of overtime hours to sick leave hours	0.92	0.88	1.20	0.88

* Mandatory overtime (roll call) has been excluded



FY08 Overtime Summary - DOCR



Average Hours Per Employee



Percentage of Employees Taking Overtime



Overtime

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Case Studies: Identifying Variables that Impact Overtime

Variables that impact overtime and opportunities to improve vary across departments

- **MCFRS: Wage Correlation**

- MCFRS demonstrates a high correlation between employee wage and number of overtime hours

- **MCPD: Departmental Requirements and Nuance**

- MCPD court appearances require a minimum of 3 hours of overtime pay regardless of actual time spent in court or if the case is heard

- **DPWT: Annual Leave**

- DPWT experiences an increased demand for their services at times of the year that also have high demand for annual leave

- **DOCR: Sick Leave**

- Because of mandatory post coverage, DOCR is sensitive to sick leave



Case Study: Correlation of Wages to Overtime Hours in MCFRS

Want to examine whether higher-paid employees are more likely to work more overtime hours than lower-paid employees

- **Numerically, this is done by calculating a correlation coefficient**
 - Value ranges between -1 and +1
 - The closer the value is to +1, the stronger the association between earning a high wage and working more overtime hours
 - The closer the value is to -1, the stronger the association between earning a lower wage and working more overtime hours
- **This is shown graphically on the next set of slides**
 - Each dot represents one person who earned overtime
 - Line shows the overall trend of the dots
 - This series demonstrate that over time, MCFRS staff are working dramatically more overtime hours



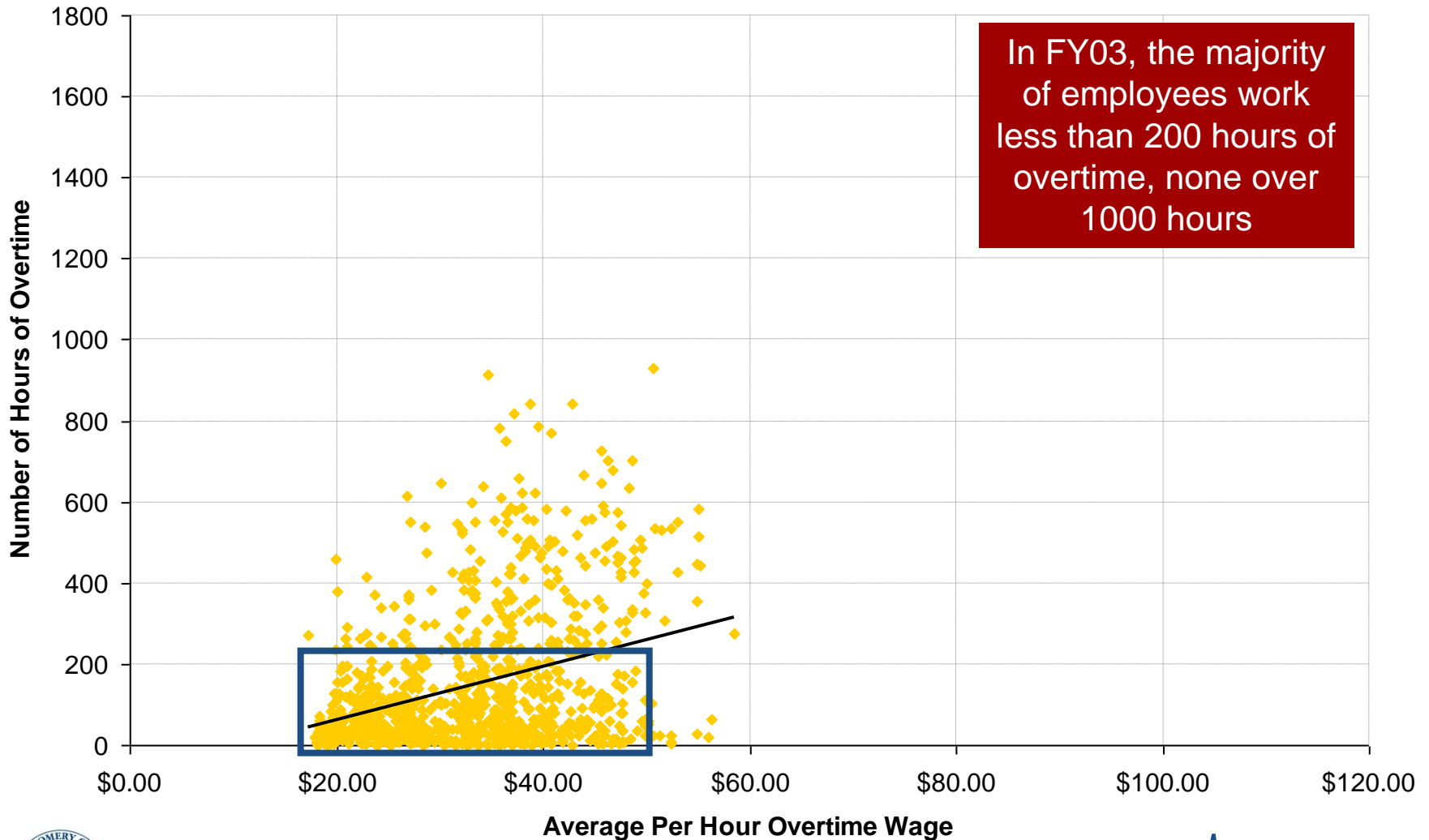
Correlation of Overtime Wages to Overtime Hours Cross-Department

MCFRS correlation values are significantly above the other Departments and are high enough to indicate a strong correlation

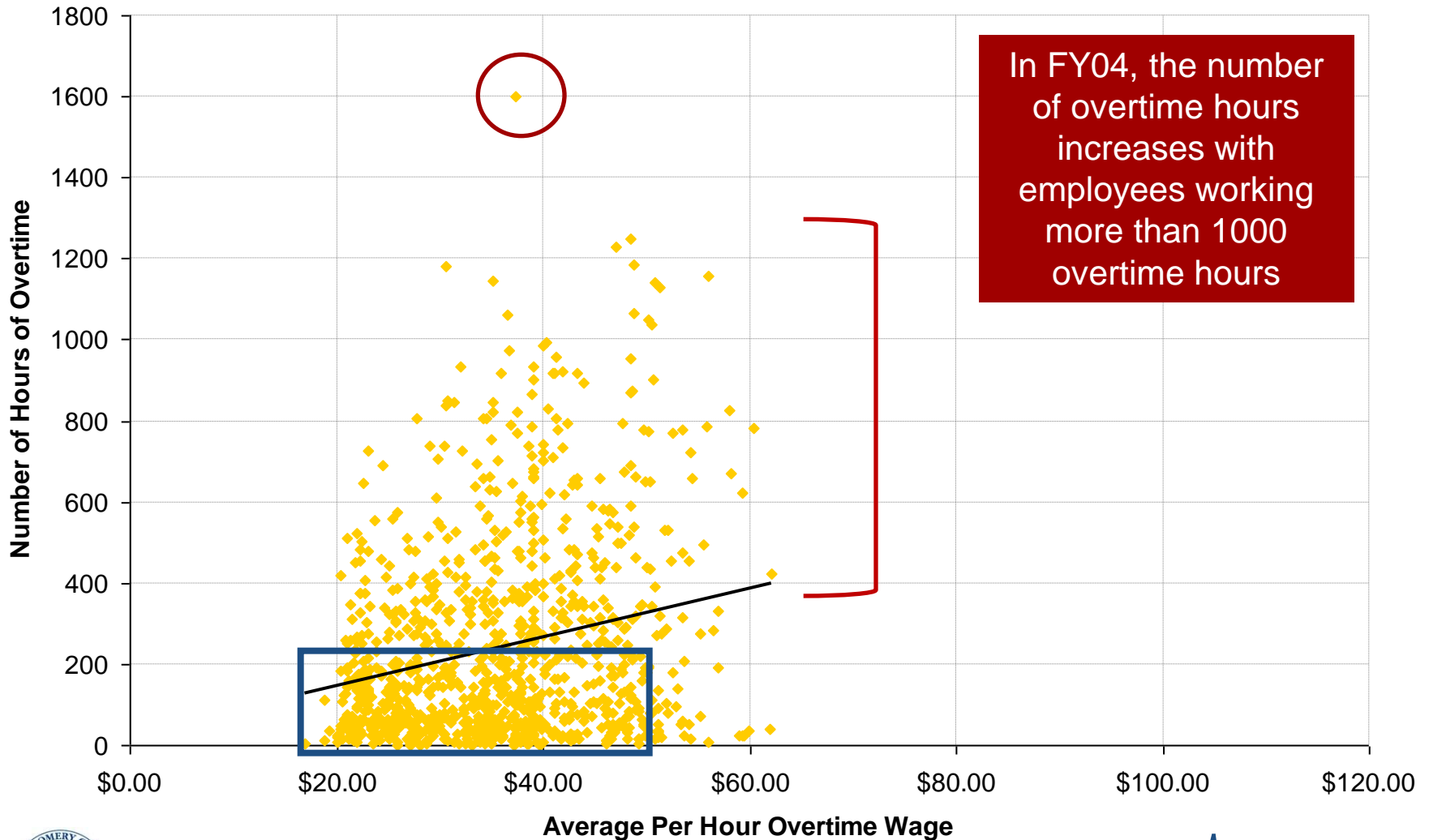
	FY04	FY05	FY06	FY07
MCFRS	0.223	0.259	0.340	0.386
DPWT	0.004	-0.071	-0.094	-0.003
MCPD	0.068	0.015	0.019	0.010
DOCR	-0.071	-0.073	-0.045	-0.021



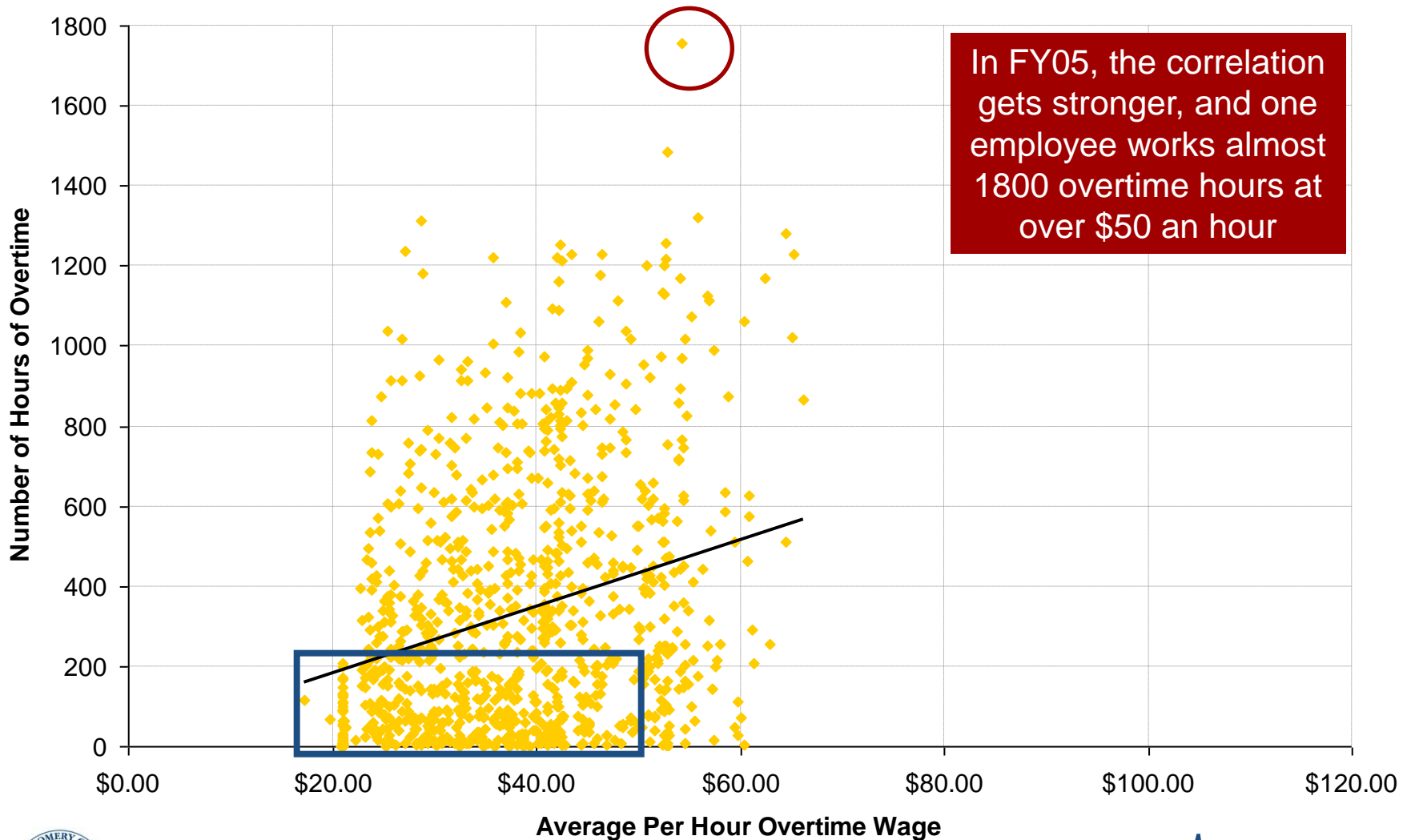
Correlation of Overtime Wage vs. Hours of Overtime Worked MCFRS Overtime: FY03



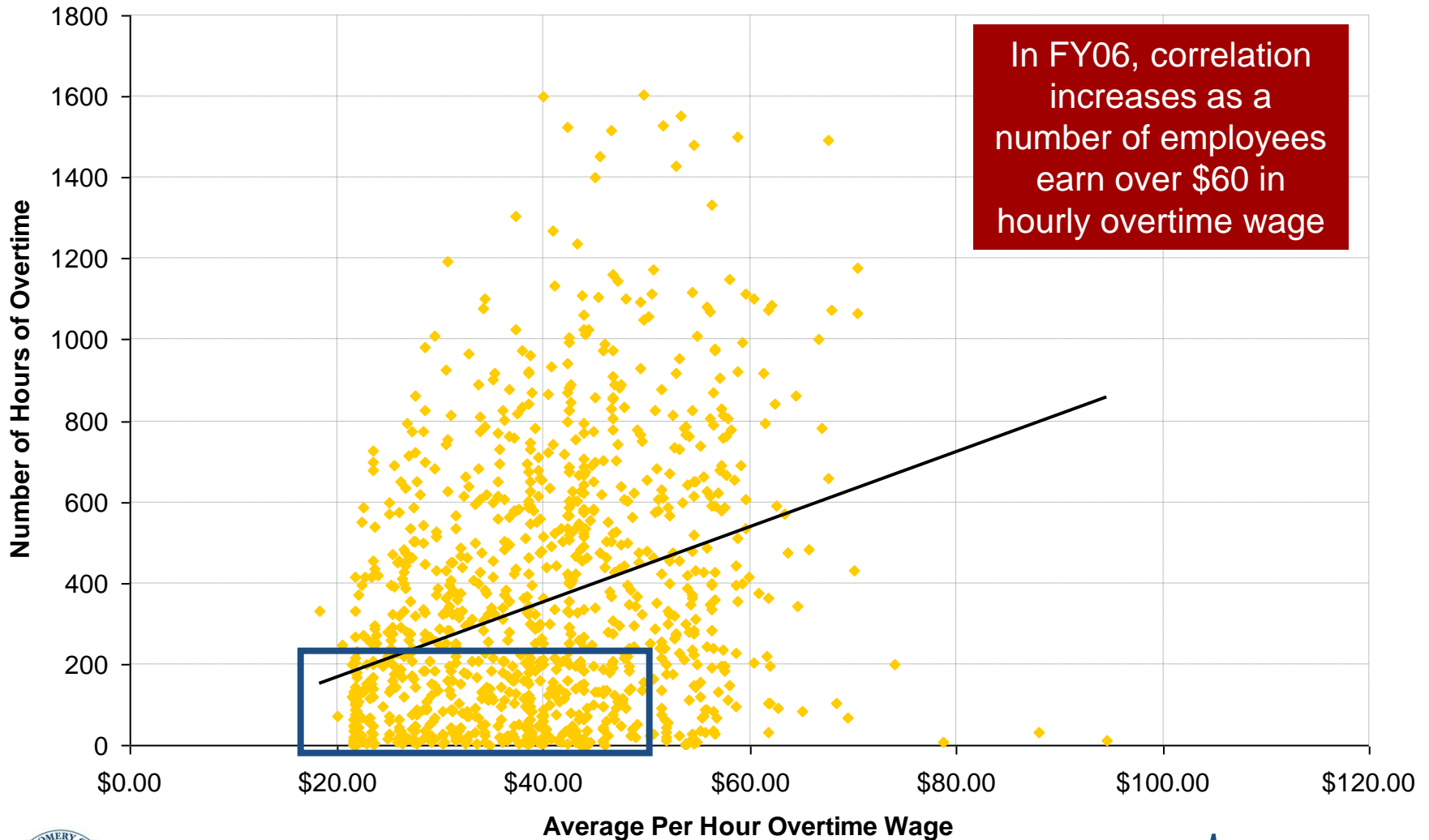
Correlation of Overtime Wage vs. Hours of Overtime Worked MCFRS Overtime: FY04



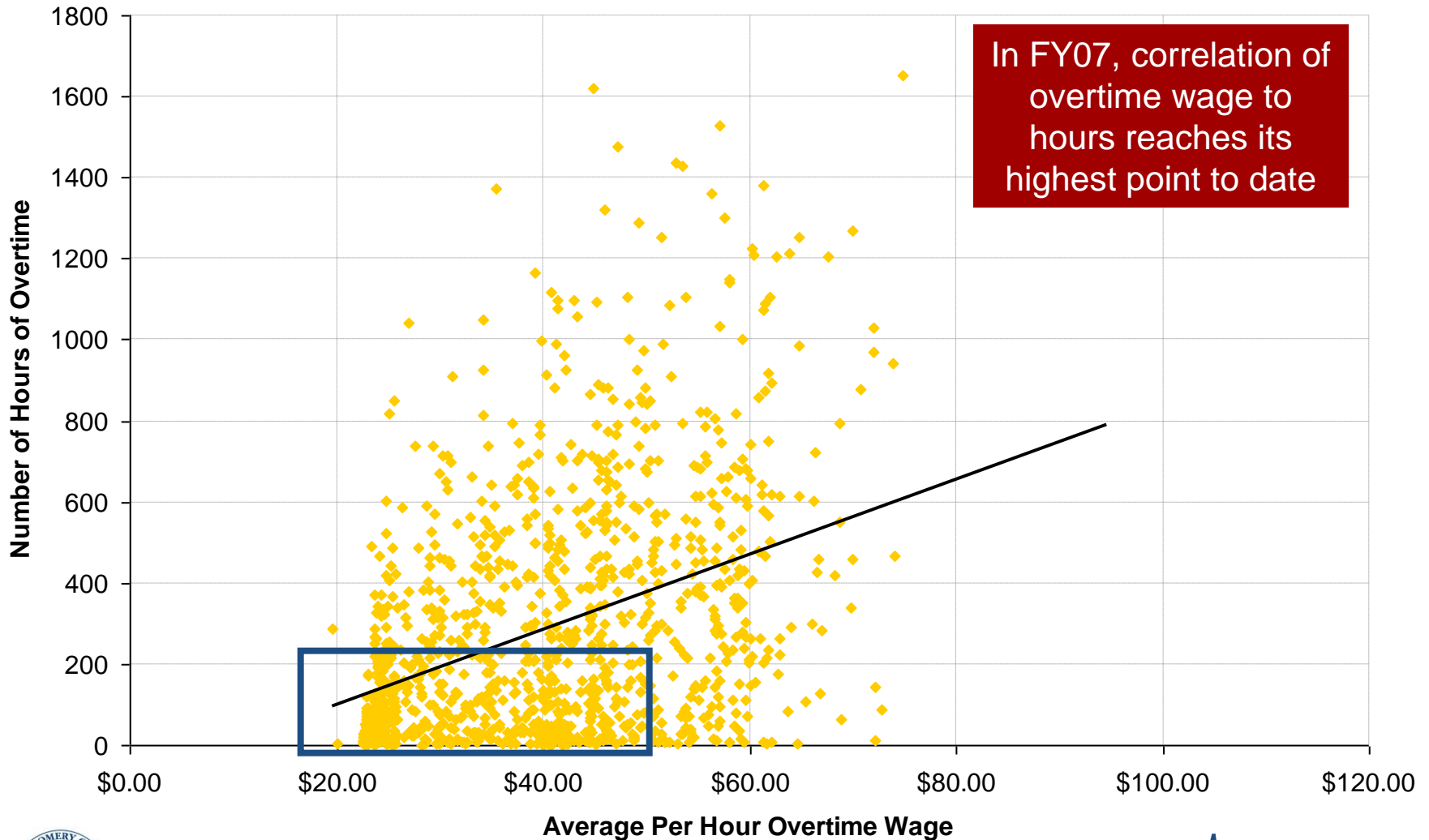
Correlation of Overtime Wage vs. Hours of Overtime Worked MCFRS Overtime: FY05



Correlation of Overtime Wage vs. Hours of Overtime Worked MCFRS Overtime: FY06



Correlation of Overtime Wage vs. Hours of Overtime Worked MCFRS Overtime: FY07



Case Study: Departmental Nuances at MCPD

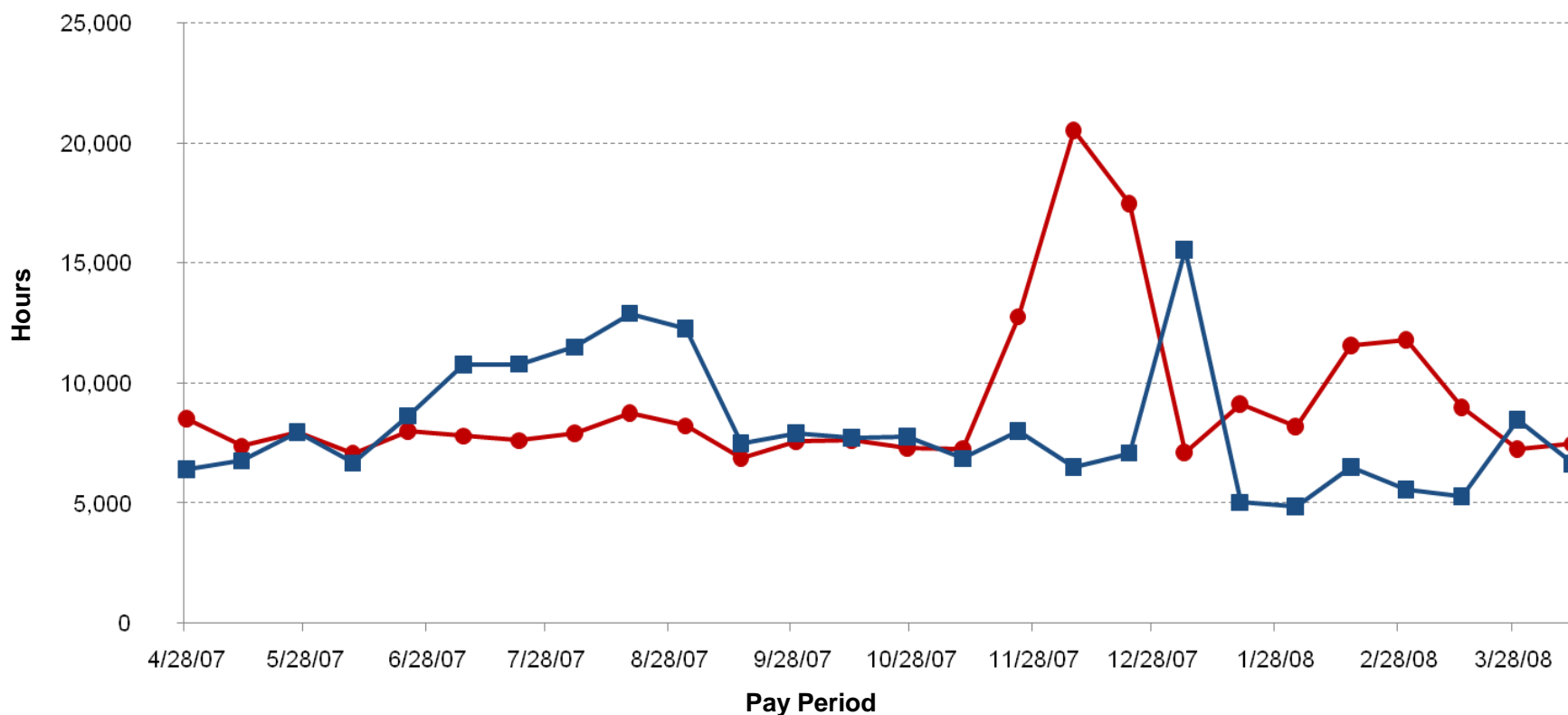
MCPD court appearances require a minimum of 3 hours of overtime pay regardless of actual time spent in court or if the case is heard

Category of Overtime	Hours in FY08	% of Total FY08 Overtime Hours
COURT	66,572	33.83%
ECC RELATED	30,313	15.40%
INVESTIGATIVE	22,126	11.24%
HELD OVER/CALL BACK	21,148	10.75%
ADMIN	16,283	8.27%
SPECIAL	12,970	6.59%
COMMUNITY POLICING	6,813	3.46%
PRISONER RELATED	6,664	3.39%



Case Study: Annual Leave and Overtime for DPWT in FY08

DPWT experiences an increased demand for their services at times of the year that also have high demand for annual leave



Total Annual Leave Hours



Total Overtime Hours

Overtime

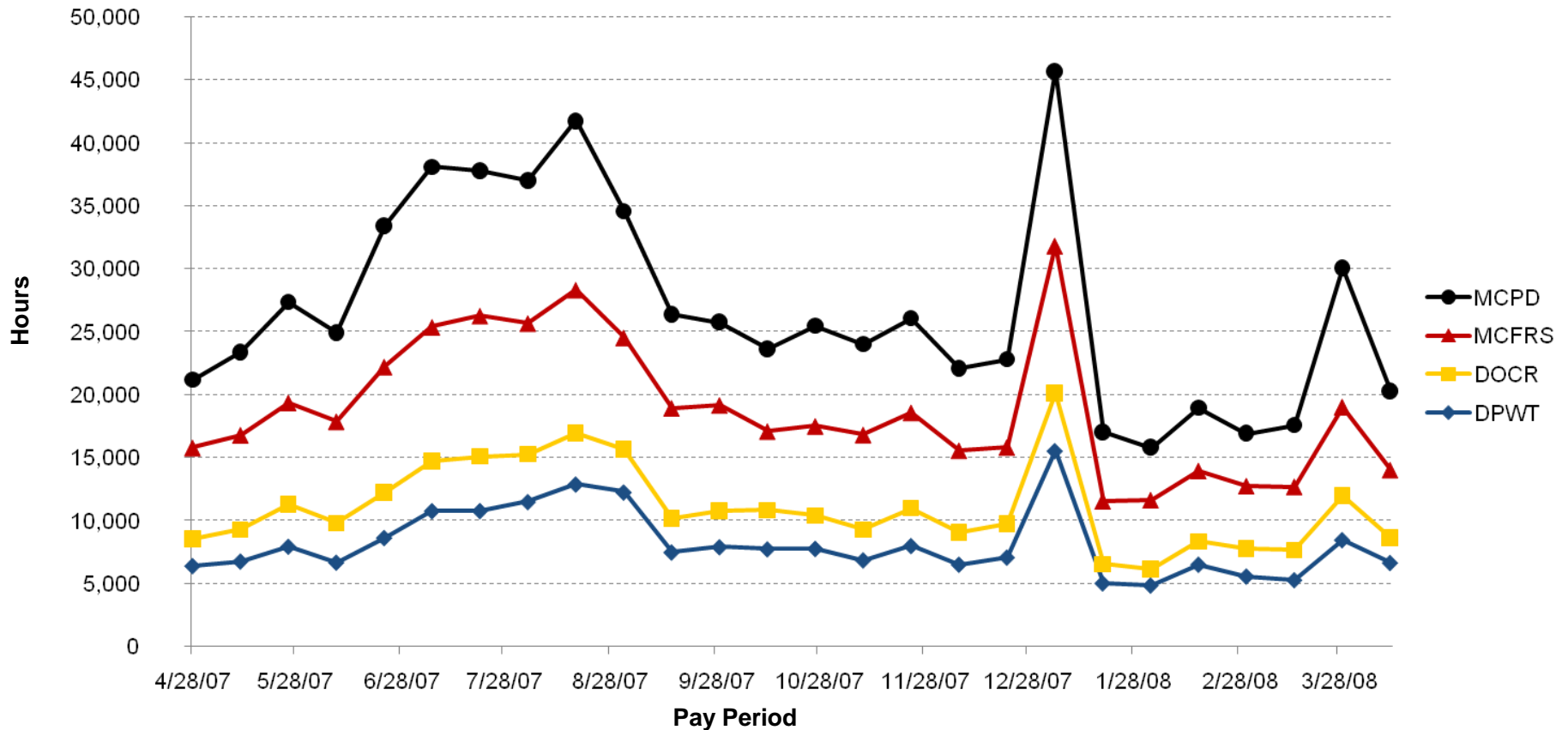
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Annual Leave Cross-Departments

Annual leave trends are apparent across departments, this allows departments to align their staffing in a manner to reduce overtime



Case Study: Sick Leave and Overtime at DOCR

- DOCR has planned staffing levels to account for leave use
- Even with this planning, sick leave use is strongly associated with overtime
 - Shown is the correlation coefficient over time between the number of hours each shift is under-staffed and the use of annual leave or sick leave.
 - Data is from 7/1/2007-12/31/2007 for MCCF Custody and Security Correctional Officers only

	Shift Time			Grand Total
	10:30pm – 7:00am	6:30am – 3:00pm	2:30pm – 11:00pm	
Annual Leave	0.31	0.07	0.18	0.04
Sick Leave	0.48	0.33	0.42	0.35



Sick Leave Cross-Departments

		FY04	FY05	FY06	FY07
MCFRS	Total hours	120,817	117,753	118,128	116,572
	Average hours*	112.1	103.1	102.3	94.3
DPWT	Total hours	138,348	137,021	136,367	143,626
	Average hours*	95.0	90.8	92.0	93.9
MCPD	Total hours	104,380	117,748	112,642	120,956
	Average hours*	69.0	74.4	68.2	69.8
DOCR	Total hours	45,406	46,598	46,984	50,589
	Average hours*	84.1	81.5	80.3	80.8

* per approved work year



Wrap-Up

- **Confirmation of follow-up items**
- **Time frame for next meeting**
 - General overtime meeting: July 11
 - MCFRS: June 6
 - DOCR: July 25
 - MCPD: August 8
 - DPWT: August 29

